

In the Claims:

1. (Currently amended) A system, comprising:

a plurality of peer nodes coupled to a network;

at least one of the plurality of peer nodes configured as a publisher peer node for a plurality of contents cached on the peer node, wherein each publisher peer node is configured to publish one or more advertisements on the network, wherein each advertisement corresponds to a specific one of the plurality of contents cached on the peer node, and wherein each advertisement includes information for requesting the specific corresponding content;

wherein to publish the one or more advertisements on the network the publisher peer node is configured to send the one or more advertisements to a rendezvous peer node, wherein the rendezvous peer node caches the one or more advertisements; and

at least a subset of the plurality of peer nodes, wherein each peer node in the subset is configured to:

discover published advertisements on the network from the rendezvous peer node by accessing the rendezvous peer node; and

request one or more specific contents each corresponding to one of the discovered advertisements in accordance with the information included in the respective advertisements;

wherein a publisher peer node that caches a content corresponding to a discovered advertisement is configured to provide the content corresponding to the

discovered advertisement to a requesting peer node in response to a request for the content from the requesting peer node; and

wherein the requesting peer node is configured to cache the content and become an additional content publisher peer node for the content corresponding to the discovered advertisement.

2. (Previously presented) The system as recited in claim 1, wherein the at least a subset of the plurality of peer nodes are each configured to:

discover two or more advertisements published by two or more content publisher peer nodes to advertise a particular content cached on each of the two or more content publisher peer nodes;

determine one of the two or more content publisher peer nodes as logically nearest on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time; and

request the particular content from the logically nearest content publisher peer node in accordance with the advertisement corresponding to the logically nearest content publisher peer node.

3. (Previously presented) The system as recited in claim 2, wherein the at least a subset of the plurality of peer nodes are each further configured to cache the particular content and become an additional content publisher peer node for the particular content.

4. (Previously presented) The system as recited in claim 1, wherein the at least a subset of the plurality of peer nodes are each configured to:

send a request for a particular content on the network;

in response to the request:

receive a portion of the particular content from a first content publisher peer node that caches the particular content; and

receive another portion of the particular content from a second content publisher peer node that also caches the particular content.

5. (Previously presented) The system as recited in claim 1, wherein the at least a subset of the plurality of peer nodes are each configured to:

broadcast a request for a particular content on the network;

receive a response to the request from each of two or more content publisher peer nodes that cache the particular content;

determine a logically nearest one of the two or more content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time; and

get the content from the logically nearest content publisher peer node.

6. (Previously presented) The system as recited in claim 1, wherein the at least a subset of the plurality of peer nodes are member peers in a peer group.

7. (Previously presented) The system as recited in claim 1, wherein the plurality of peer nodes is configured to participate in a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peers-to-peer environment.

8. (Previously presented) A system, comprising:

a plurality of content publisher peer nodes coupled to a network, wherein each of the plurality of content publisher peer nodes is configured to cache a plurality of separately user-requestable contents and to publish the cached contents on the network;

a content consumer peer node coupled to the network and configured to:

send a request for a particular content on the network in response to a user request for the particular content; and

receive the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time.

9. (Previously presented) The system as recited in claim 8, wherein the content consumer peer node is configured to become an additional content publisher peer node for the particular content, wherein to become an additional content publisher peer node for the particular content, the content consumer peer node is configured to cache the particular content and publish the particular content for access by other content consumer peer nodes on the network.

10. (Original) The system as recited in claim 8, wherein the plurality of peer nodes are member peers in a peer group.

11. (Previously presented) The system as recited in claim 8, wherein the plurality of peer nodes is configured to participate in a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the plurality of

peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment.

12. (Previously presented) A system, comprising:

a primary content publisher peer node configured to cache user-requestable contents and publish the cached contents for access by other peer nodes on a network;

an edge content publisher peer node configured to:

receive a plurality of the user-requestable contents from the primary content publisher peer node;

cache the received plurality of contents; and

publish the received plurality of contents for access by the other peer nodes on the network;

wherein the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher.

13. (Previously presented) The system as recited in claim 12, further comprising an edge peer node configured to:

send a request for particular content on the network in response to a user request for the particular content;

if the edge content publisher peer node is logically nearer to the edge peer node on the network than the primary content publisher peer node, receive the particular content from the edge content publisher peer node; and

if the primary content publisher peer node is logically nearer to the edge peer node on the network than the edge content publisher peer node, receive the particular content from the primary content publisher peer node;

wherein a logically nearer peer node is the peer node to which communications over the network take the least time.

14. (Previously presented) The system as recited in claim 13, wherein the edge peer node is further configured to become an additional content publisher peer node for the particular content, wherein to become an additional content publisher peer node for the particular content, the edge peer node is configured to cache the particular content and publish the particular content for access by the other peer nodes on the network.

15. (Previously presented) The system as recited in claim 12, further comprising an edge peer node configured to:

send a request for particular content on the network in response to a user request for the particular content;

receive a portion of the particular content from the primary content publisher peer node in response to the request;

receive a redirection to the edge content publisher peer node from the primary content publisher peer node; and

receive another portion of the particular content from the edge content publisher peer node in response to the redirection.

16. (Original) The system as recited in claim 12, wherein the peer nodes are member peers in a peer group.

17. (Previously presented) The system as recited in claim 12, wherein the peer nodes are configured to participate in a peer-to-peer environment on the network in accordance with one or more peer-to-peer platform protocols for enabling the peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment.

18. (Previously presented) A system, comprising:

means for a plurality of peer nodes to each cache a plurality of separately user-requestable contents and publish the user-requestable contents for access by other peer nodes on a network;

means for a peer node to send a request for a particular content on the network in response to a user request for the particular content; and

means for the peer node to receive the requested particular content from a nearest one of the plurality of peer nodes that caches and publishes the particular content on the network.

19. (Original) The system as recited in claim 18, further comprising means for the peer node to cache and publish the particular content for access by other peer nodes on the network.

20. (Previously presented) A method, comprising:

a content publisher peer node caching a plurality of separately user-requestable contents and publishing the cached user-requestable contents for access by other peer nodes on a network;

one of the other peer nodes:

requesting a particular content on the network in response to a user request for the particular content;

receiving the particular content from the content publisher peer node;

caching the received particular content; and

publishing the received particular content for access by the other peer nodes on the network.

21. (Previously presented) The method as recited in claim 20, further comprising:

a different peer node requesting the particular content on the network in response to a user request for the particular content;

if the one of the other peer nodes is logically nearer to the different peer node on the network than the content publisher peer node, the different peer node receiving the particular content from the one of the other peer nodes; and

if the content publisher peer node is logically nearer to the different peer node on the network than the one of the other peer nodes, the different peer node receiving the particular content from the content publisher peer node;

wherein a logically nearer peer node is the peer node to which communications over the network take the least time.

22. (Previously presented) The method as recited in claim 21, further comprising the different peer node caching the particular content and publishing the particular content for access by the other peer nodes on the network.

23. (Original) The method as recited in claim 21, wherein the different peer node is an edge peer node.

24. (Previously presented) The method as recited in claim 20, further comprising:

a different peer node requesting the particular content on the network in response to a user request for the particular content;

the different peer node receiving a portion of the particular content from the content publisher peer node in response to the request;

the different peer node receiving a redirection to the one of the other peer nodes from the content publisher peer node; and

the different peer node receiving another portion of the particular content from the one of the other peer nodes in response to the redirection.

25. (Previously presented) The method as recited in claim 20, wherein the content publisher peer node is a primary publisher of the particular content, and wherein the one of the other peer nodes is an edge publisher of the particular content.

26. (Original) The method as recited in claim 20, wherein the peer nodes are member peers in a peer group.

27. (Original) The method as recited in claim 20, wherein the peer nodes are configured to participate in a peer-to-peer networking environment implemented in accordance with one or more peer-to-peer platform protocols for enabling peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment.

28. (Previously presented) A computer-accessible storage medium, comprising program instructions, wherein the program instructions are computer-executable to implement:

a content publisher peer node caching a plurality of separately user-requestable contents and publishing the cached user-requestable contents for access by other peer nodes on a network;

one of the other peer nodes:

requesting a particular content on the network in response to a user request for the particular content;

receiving the particular content from the content publisher peer node;

caching the received particular content; and

publishing the received particular content for access by the other peer nodes on the network.

29. (Previously presented) The computer-accessible storage medium as recited in claim 28, wherein the program instructions are further computer-executable to implement:

a different peer node requesting the particular content on the network in response to a user request for the particular content;

if the one of the other peer nodes is logically nearer to the different peer node on the network than the content publisher peer node, the different peer node receiving the particular content from the one of the other peer nodes; and

if the content publisher peer node is logically nearer to the different peer node on the network than the one of the other peer nodes, the different peer node receiving the particular content from the content publisher peer node;

wherein a logically nearer peer node is the peer node to which communications over the network take the least time.

30. (Previously presented) The computer-accessible storage medium as recited in claim 29, wherein the program instructions are further computer-executable to implement the different peer node caching the particular content and publishing the particular content for access by the other peer nodes on the network.

31. (Previously presented) The computer-accessible storage medium as recited in claim 29, wherein the different peer node is an edge peer node.

32. (Previously presented) The computer-accessible storage medium as recited in claim 28, wherein the program instructions are further computer-executable to implement:

a different peer node requesting the particular content on the network in response to a user request for the particular content;

the different peer node receiving a portion of the particular content from the content publisher peer node in response to the request;

the different peer node receiving a redirection to the one of the other peer nodes from the content publisher peer node; and

the different peer node receiving another portion of the particular content from the one of the other peer nodes in response to the redirection.

33. (Previously presented) The computer-accessible storage medium as recited in claim 28, wherein the content publisher peer node is a primary publisher of the particular content, and wherein the one of the other peer nodes is an edge publisher of the particular content.

34. (Previously presented) The computer-accessible storage medium as recited in claim 28, wherein the peer nodes are member peers in a peer group.

35. (Previously presented) The computer-accessible storage medium as recited in claim 28, wherein the peer nodes are configured to participate in a peer-to-peer networking environment implemented in accordance with one or more peer-to-peer platform protocols for enabling peer nodes to discover each other, communicate with each other, and cooperate with each other to form peer groups and share network resources in the peer-to-peer environment.